

AIR POLLUTION CONTROL REGULATION NO. 9

AIR POLLUTION CONTROL PERMITS

Effective 3 August 1971

Last Amended 30 July 1998

Technical Revisions 1 October 1999

**RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR RESOURCES  
AIR POLLUTION CONTROL REGULATION NO. 9**

**AIR POLLUTION CONTROL PERMITS**

**Table of Contents**

<b>9.1</b>	<b>Definitions.....</b>	<b>1</b>
<b>9.2</b>	<b>General Requirements.....</b>	<b>12</b>
<b>9.3</b>	<b>Minor Source Permits: Applicability, Exemptions, Requirements for Approval and Applications</b>	<b>13</b>
<b>9.4</b>	<b>Major Source Permits: Requirements for Major Stationary Sources or Major Modifications in Nonattainment Areas.....</b>	<b>16</b>
<b>9.5</b>	<b>Major Source Permits: Requirements for Major Stationary Sources or Major Modifications in Attainment or Unclassifiable Areas (PSD) .....</b>	<b>22</b>
<b>9.6</b>	<b>Administrative Actions .....</b>	<b>29</b>
<b>9.7</b>	<b>Phased Construction Projects .....</b>	<b>32</b>
<b>9.8</b>	<b>Stack Heights.....</b>	<b>32</b>
<b>9.9</b>	<b>Post Construction Monitoring .....</b>	<b>32</b>
<b>9.10</b>	<b>Relaxations.....</b>	<b>33</b>
<b>9.11</b>	<b>Banking of Emissions.....</b>	<b>33</b>
<b>9.12</b>	<b>Public Participation .....</b>	<b>33</b>
<b>9.13</b>	<b>Application for an Air Toxics Operating Permit .....</b>	<b>36</b>
<b>9.14</b>	<b>Administrative Action: Air Toxics Operating Permits.....</b>	<b>36</b>
<b>9.15</b>	<b>Transfer of an Air Toxics Operating Permit.....</b>	<b>37</b>
	<b>Appendix A: Minimum Quantities.....</b>	<b>37</b>
	<b>Appendix B: List of Hazardous Air Pollutants .....</b>	<b>39</b>

## **9.1 Definitions**

As used in these regulations, the following terms shall, where the context permits, be construed as follows:

- 9.1.1 "Actual emissions" means the actual rate of emissions of a pollutant from an emissions unit, as determined in accordance with Subsections (a) through (c) below:
- (a) In general, actual emissions as of a particular date shall equal the average rate, in tons per year, at which the unit actually emitted the pollutant during a two-year period which precedes the particular date and which is representative of normal source operation. The Director shall allow the use of a different time period upon a determination that it is more representative of normal source operation. Actual emissions shall be calculated using the unit's actual operating hours, production rates, and types of materials processed, stored, or combusted during the selected time period.
  - (b) The Director may presume that source specific allowable emissions for the unit are equivalent to actual emissions of the unit.
  - (c) For any emissions unit which has not begun normal operations on the particular date, actual emissions shall equal the potential to emit of the unit on that date.
- 9.1.2 "Air pollution control system" means a system, device or equipment designed and installed primarily for the purpose of reducing or eliminating the emission of air contaminants to the atmosphere.
- 9.1.3 "Allowable emissions" means the emission rate of a stationary source calculated using the maximum rated capacity of the source unless the source is subject to federally enforceable limits which restrict the operating rate or hours of operation, or both and the most stringent of the following:
- (a) Applicable standards as set forth in 40 CFR Parts 60 and 61 (New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants); or
  - (b) Any applicable State Implementation Plan emission limitations, including those with a future compliance date; or
  - (c) The emissions rate specified as a federally enforceable permit condition, including those with a future compliance date .
- 9.1.4 "Attainment or unclassifiable area" means for any air pollutant, an area which is not designated as a nonattainment area.

- 9.1.5 "Begin actual construction" means, in general, initiation of physical onsite construction activities on an emissions unit which are of a permanent nature. Such activities include, but are not limited to, installing building supports and foundations, laying underground pipework, and constructing permanent storage structures. With respect to a change in the method of operation, this term refers to those on-site activities, other than preparatory activities, which mark the initiation of the change.
- 9.1.6 "Best available control technology" means an emissions limitation (including a visible emissions standard) based on the maximum degree of reduction for each air pollutant which would be emitted from any proposed stationary source or modification which the Director, on a case-by-case basis, taking into account energy, environmental and economic impacts and other costs, determines is achievable for such stationary source or modification through application of production processes or available methods, systems and techniques, including fuel cleaning, clean fuels, or treatment or innovative fuel combustion techniques for control of such pollutant. In no event shall application of best available control technology result in emissions of any pollutant which would exceed the emissions allowed by any applicable state or federal air pollution control rule or regulation. If the Director determines that technological or economic limitations on the application of measurement methodology to a particular emissions unit would make the imposition of air emissions standards infeasible, a design, equipment, work practice, operational standard or combination thereof, may be prescribed instead to satisfy the requirement of best available control technology. Such standard shall to the degree possible set forth the emission reduction achievable by implementation of such design, equipment, work practice or operation and shall provide for compliance by means which achieve equivalent results.
- 9.1.7 "Building, structure, facility or installation" means all of the pollutant-emitting activities which belong to the same industrial grouping are located on one or more contiguous or adjacent properties and are under the control of the same person (or persons under common control) except the activities of any vessel. Pollutant-emitting activities shall be considered as part of the same industrial grouping if they belong to the same "major group" (i.e. which have the same two-digit code) as described in the Standard Industrial Classification Manual, 1972, as amended by the 1977 Supplement (U.S. Government Printing Office Stock Nos. 4101-0066 and 003-005-00176-0, respectively).
- 9.1.8 "Calculated Acceptable Ambient Level" means the maximum allowable air concentration of an air contaminant, excluding listed toxic air contaminants and national ambient air quality standards, contributed by a stationary source, at or beyond the facility's property line calculated by the method in the Rhode Island Air Toxics Guidelines.

9.1.9 "Commence" as applied to construction of a stationary source or modification means that the owner or operator has all the necessary preconstruction approvals or permits and either has:

- (a) begun or caused to begin, a continuous program of actual on-site construction of the source, to be completed within a reasonable time; or
- (b) entered into binding agreements or contractual obligations, which cannot be canceled or modified without substantial loss to the owner or operator, to undertake a program of actual construction of the source to be completed within a reasonable time.

9.1.10 "Complete" means in reference to an application for a permit, that the application contains all the information necessary for processing the application. Designating an application complete for purposes of permit processing does not preclude the Director from requesting or accepting any additional information.

9.1.11 "Construct a 112(g) source" means:

- (a) To fabricate, erect, or install at any greenfield site an emissions unit or group of emissions units which is located within a contiguous area and under common control and which emits or has the potential to emit 10 tons per year of any HAP's or 25 tons per year of any combination of HAP, or
- (b) To fabricate, erect, or install at any developed site an emissions unit which in and of itself emits or has the potential to emit 10 tons per year of any HAP or 25 tons per year of any combination of HAP, unless the emissions unit satisfies criteria in paragraphs (b) (1) through (6) of this definition.
  - (1) All HAP emitted by the emissions unit that would otherwise be controlled under the requirements of this subpart will be controlled by emission control equipment which was previously installed at the same site as the emissions unit;
  - (2) The Office of Air Resources has determined within a period of 5 years prior to the fabrication, erection, or installation of the emissions unit that the existing emission control equipment represented best available control technology (BACT) or lowest achievable emission rate (LAER); or

The Office of Air Resources determines that the control of HAP emissions provided by the existing equipment will be equivalent to that level of control currently achieved by other well-controlled similar sources (i.e., equivalent to the level of control that would be provided by a current BACT or LAER;

- (3) The Office of Air Resources determines that the percent control efficiency for emissions of HAP from all sources to be controlled by the existing control equipment will be

equivalent to the percent control efficiency provided by the control equipment prior to the inclusion of the new emissions unit;

- (4) The Office of Air Resources has provided notice and an opportunity for public comment concerning its determination that criteria in paragraphs (b)(1), (b)(2), and (b)(3) of this definition apply and concerning the continued adequacy of any prior BACT or LAER determination;
- (5) If any commenter has asserted that a prior BACT or LAER determination is no longer adequate, the Office of Air Resources has determined that the level of control required by that prior determination remains adequate; and
- (6) Any emission limitations, work practice requirements, or other terms and conditions upon which the above determinations by the Office of Air Resources were made, are applicable requirements under APC Regulation No. 29 and either have been incorporated into any existing operating permit for the affected facility or will be incorporated into such permit upon issuance.

9.1.12 "Construction" means any physical change or change in the method of operation (including fabricating, erecting, locating, modification or demolition of an emissions unit) which would result in a change in actual emissions.

9.1.13 "Control technology" means measures, processes, methods, systems, or techniques to limit the emission of hazardous air pollutants through process changes, substitution of materials or other modifications that;

- (a) Reduce the quantity of, or eliminate emissions of, such pollutants through process changes, substitution of materials or other modifications;
- (b) Enclose systems or processes to eliminate emissions;
- (c) Collect, capture or treat such pollutants when released from a process, stack, storage or fugitive emissions point;
- (d) Are design, equipment, work practice, or operational standards (including requirements for operator training or certification) as provided in 42 U.S.C. 7412(h); or
- (e) Are a combination of paragraphs (a) through (d) of this definition.

9.1.14 "Emissions unit" means any part of a stationary source which emits or would have the potential to emit any air pollutant (including fugitive emissions).

- 9.1.15 "Federally enforceable" means all limitations and conditions which are enforceable by the Administrator of the U.S. Environmental Protection Agency including those requirements developed pursuant to 40 CFR Parts 60 and 61 (New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants), requirements within the State Implementation Plan, those requirements in operating permits issued pursuant to 40 CFR Part 71 or under regulations approved pursuant to 40 CFR Part 70 and any requirements established under Air Pollution Control Regulation No. 9.
- 9.1.16 "Fixed capital cost" means the capital needed to provide all the depreciable components.
- 9.1.17 "Fugitive emissions" means those emissions which could not reasonably pass through a stack, chimney, vent or other functionally equivalent opening.
- 9.1.18 "Good engineering practice" means with respect to stack heights, the height necessary to insure that emissions from the stack do not result in excessive concentrations of any air pollutant in the immediate vicinity of the source as a result of aerodynamic downwash, eddies and wakes which may be created by the source itself, nearby structures or nearby terrain obstacles as calculated according to the Rhode Island Guideline on Air Quality Modeling.
- 9.1.19 "Greenfield site" means a contiguous area under common control that is an undeveloped site.
- 9.1.20 "Hazardous air pollutant" means any air pollutant listed pursuant to Subsection 112(b) of the Clean Air Act as amended in 1990.
- 9.1.21 "Indian Governing Body" means the governing body of any tribe, band or group of Indians subject to the jurisdiction of the United States and recognized by the United States as possessing power of self-government.
- 9.1.22 "Major modification" means any physical change or change in the method of operation of a major stationary source that would result in a significant net emission increase of any air pollutant. Any net emission increase that is considered significant for volatile organic compounds or nitrogen oxides shall be considered significant for ozone. A physical change or change in the method of operation shall not include:
- (a) Routine maintenance, repair and replacement.
  - (b) An increase in the hours of operation or in the production rate, unless such change is prohibited by conditions of any federally enforceable permit issued after 21 December 1976 pursuant to 40 CFR 52.21 (PSD) or under Air Pollution Control Regulation No. 9 or under operating permits issued pursuant to 40 CFR Part 71 or under regulations approved pursuant to 40 CFR Part 70.

- (c) Any change in ownership at a stationary source.
- (d) Use of an alternative fuel or raw material by reason of an order under Sections 2 (a) and (b) of the Energy Supply and Environmental Coordination Act of 1974 (or any superseding legislation) or by reason of a natural gas curtailment plan pursuant to the Federal Power Act.
- (e) Use of an alternative fuel at a steam generating unit to the extent that the fuel is generated from municipal solid waste.
- (f) Use of an alternative fuel or raw material by a stationary source which:
  - (1) the source was capable of accommodating before 6 January 1975 unless such change would be prohibited under any federally enforceable permit condition which was established after 6 January 1975 pursuant to 40 CFR 52.21 or under Air Pollution Control Regulation No. 9 or under operating permits issued pursuant to 40 CFR Part 71 or under regulations approved pursuant to 40 CFR Part 70; or
  - (2) the source is approved to use under any permit issued under 40 CFR 52.21 or under Air Pollution Control Regulation No. 9.

9.1.23 "Major Source Permit" means an approval or permit issued by the Office of Air Resources for the construction or installation of a major stationary source or major modification.

9.1.24 "Maximum achievable control technology (MACT) emission limitation for new sources" means the emission limitation which is not less stringent than the emission limitation achieved in practice by the best controlled similar source, and which reflects the maximum degree of reduction in emissions that the Office of Air Resources, taking into consideration the cost of achieving such emission reduction, and any non-air quality health and environmental impacts and energy requirements, determines is achievable by the constructed or reconstructed 112(g) source.

9.1.25 "Minor Source Permit" means an approval or permit issued by the Office of Air Resources for the construction, installation or modification of a stationary source that is neither a major stationary source nor a major modification.

9.1.26 "Modification" means any physical or operational change to any machine, equipment, device, article or facility which may result in an increased emission rate to the atmosphere of any air contaminant. The following shall not be considered a modification:

- (a) Routine maintenance, repair, and replacement of any machine, equipment, device, article or facility or parts thereof as defined in Subsection 9.3.1.
- (b) Increase in production rate of any machine, equipment, device, article or facility as defined in Subsection 9.3.1 based solely upon the capabilities of existing process equipment.



(c) Increase in hours of operation up to the maximum hours allowed in any federally enforceable permit.

(d) Use of an alternative fuel or raw material if the machine, equipment, device, article or facility was designed and approved to accommodate that alternative use.

9.1.27 "Necessary preconstruction approval or permits" means those permits or approvals required under state and federal air quality control laws and regulations and those air quality control laws and regulations which are part of the RI State Implementation Plan.

9.1.28 "Net emissions increase" means the amount by which the sum of the following exceeds zero:

(a) Any increase in actual emissions from a particular physical change or change in the method of operation at a stationary source; and

(b) All other increases and decreases in actual emissions at the source that are contemporaneous with the particular change and are otherwise creditable. Creditable increases or decreases are subject to the following;

(1) An increase or decrease in actual emissions is contemporaneous with the particular change only if it occurs over any period of five consecutive calendar years which includes the calendar year in which such increase occurred.

(2) An increase or decrease in actual emissions is creditable only if:

a. The Director has not relied on the increase or decrease in actual emissions in issuing a permit for any stationary source under these regulations and the permit is in effect when the increase in actual emissions from the particular change occurs; or,

b. The Director has not relied on the increase or decrease in actual emissions for netting or offset credit in a previous permit issued under these regulations; or,

c. The Director has not relied on the increase or decrease in actual emissions in demonstrating attainment or reasonable further progress.

(3) An increase or decrease in actual emissions of sulfur dioxide, nitrogen oxides or particulate matter which occurs before the applicable baseline date is creditable only if it is required to be considered in calculating the available remaining increment. With respect to particulate matter, only PM-10 emissions can be used to evaluate the net emissions increase for PM-10.

(4) An increase in actual emissions is creditable only to the extent that the new level of actual emissions exceeds the old level.

(5) A decrease in actual emissions is creditable only to the extent that:

- a. The old level of actual emissions or the old level of allowable emissions, whichever is lower, exceeds the new level of actual emissions.
- b. It is federally enforceable at and after the time that actual construction on the particular change begins.
- c. It has approximately the same qualitative significance for public health and welfare that attributed to the increase from the particular change.

(6) An increase that results from a physical change at a stationary source occurs when the emissions unit on which construction occurred becomes operational and begins to emit a particular pollutant. Any replacement unit that requires shakedown becomes operational only after a reasonable shakedown period, not to exceed 180 days.

9.1.29 "Nonattainment area" means for any air pollutant, an area which is shown by monitored data or is calculated by air quality modeling based on monitored data, to exceed any national ambient air quality standard for such pollutant and has been designated as such in the Federal Register.

9.1.30 "Nonroad engine" means

- (a) any internal combustion engine (including the fuel system) of any size which is used to propel any vehicle not excluded under subsection (d) of this definition. This includes any internal combustion engine which serves a dual function (i.e., to propel a vehicle and operate a device while stationary), such as a mobile crane;
- (b) any internal combustion engine which is located in (or on) a motor vehicle, nonroad vehicle, or trailer which is primarily intended to operate while the vehicle is in motion; or
- (c) any internal combustion engine or combination of internal combustion engines arranged to function together, regardless of application, with a combined output of 175 hp or less which is actually controlled to meet a regulation under Section 213 of the Clean Air Act, unless excluded under subsection (d) of this definition;
- (d) an internal combustion engine is not a nonroad engine if:
  - (1) it is used to propel a motor vehicle or a vehicle used solely for competition; or,
  - (2) it is regulated under Section 111 or Section 202 of the Clean Air Act, regardless of size.

9.1.31 "Nonroad vehicle" means a vehicle that is powered by a nonroad engine and that is not a motor vehicle or a vehicle used solely for competition.

- 9.1.32 "Particulate matter" means any airborne finely divided solid or liquid material with an aerodynamic diameter smaller than 100 micrometers.
- 9.1.33 "Particulate matter emissions" means all finely divided solid or liquid material, other than uncombined water, emitted to the ambient air as measured by applicable reference methods, or an equivalent or alternative method, as specified in 40 CFR 53.
- 9.1.34 "PM-10" means particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by a reference method based on Appendix J of 40 CFR 50 and designated in accordance with 40 CFR 53 or by an equivalent method designated in accordance with 40 CFR 53.
- 9.1.35 "PM-10 emissions" means finely divided solid or liquid material, with an aerodynamic diameter less than or equal to a nominal 10 micrometers emitted to the ambient air as measured by an applicable reference method, or an equivalent or alternative method as specified in 40 CFR 53.
- 9.1.36 "Potential to emit" means the maximum capacity of stationary source to emit a pollutant under its physical or operational design. Any physical or operational limitation on the capacity of a source to emit a pollutant, including air pollution control equipment and restrictions on the hours of operation or on the type or amount of material combusted, stored or processed, shall be treated as part of its design only if the limitation or the effect it would have on emissions is federally enforceable. Secondary emissions do not count in determining the potential to emit of a stationary source.
- 9.1.37 "Reasonable further progress" means such annual incremental reductions in emissions of the relevant air pollutant as are required by Part D of the Clean Air Act as amended in 1990 or may reasonably be required by the Director for the purpose of ensuring attainment of the applicable national ambient air quality standards in an area.
- 9.1.38 "Reconstruct a 112(g) source" means the replacement of components at an existing emissions unit that in and of itself emits or has that potential to emit 10 tons per year of any HAP or 25 tons per year of any combination of HAP, whenever:
- (a) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable emissions unit; and
  - (b) It is technically and economically feasible for the reconstructed 112(g) source to meet the applicable maximum achievable control technology emission limitation for new sources established under this subpart.
- 9.1.39 "Reconstruction" will be presumed to have taken place where the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost of a comparable entirely new

stationary source. Any final decision as to whether reconstruction has occurred shall be made in accordance with the provisions of 40 CFR 60.15 (f) (1) - (3). A reconstructed stationary source will be treated as a new stationary source for purposes of this regulation. In determining lowest achievable emission rate for a reconstructed stationary source, the provisions of 40 CFR 60.15 (f) (4) shall be taken into account in assessing whether a new source performance standard is applicable to such stationary source.

- 9.1.40 "Secondary emissions" means emissions which occur as a result of the construction or operation of a major stationary source or major modification, but do not come from the major stationary source or major modification itself. Secondary emissions must be specific, well defined, quantifiable and impact the same general areas as the stationary source or modification. Secondary emissions include emissions from any off-site support facility which would not be constructed or increase its emissions except as a result of the construction or operation of the major stationary source or major modification. Secondary emissions do not include emissions from any mobile source regulated under Title II of the Clean Air Act.
- 9.1.41 "Significant" means in reference to a net emissions increase or the potential of a source to emit a rate of emissions that would equal or exceed any of the following rates:

Pollutant and Emissions Rate

Carbon monoxide: 100 tons per year (tpy)  
Nitrogen oxides: 25 tpy  
Sulfur dioxide: 40 tpy  
Particulate matter: 25 tpy  
Particulate matter less than 10 microns in diameter: 15 tpy  
Ozone: 25 tpy of volatile organic compounds or nitrogen oxides  
Lead: 0.6 tpy  
Asbestos 0.007 tpy  
Beryllium: 0.0004 tpy  
Mercury: 0.1 tpy  
Vinyl chloride: 1 tpy  
Fluorides: 3 tpy  
Sulfuric acid mist: 7 tpy  
Hydrogen sulfide (H<sub>2</sub>S): 10 tpy  
Total reduced sulfur (including H<sub>2</sub>S): 10 tpy  
Reduced sulfur comp. (including H<sub>2</sub>S): 10 tpy  
Municipal waste combustor organics (measured as total tetra- through octa-chlorinated dibenzo-p-dioxins and dibenzofurans):  $3.2 \times 10^{-6}$  tpy  
Municipal waste combustor metals (measured as particulate matter): 15 tpy  
Municipal waste combustor acid gases (measured as SO<sub>2</sub> and HCl): 40 tpy  
Any other air pollutant: 5 tpy

9.1.42 "Similar source" means a stationary source or process that has comparable emissions and is structurally similar in design and capacity to a constructed or reconstructed 112(g) source such that the source could be controlled using the same control technology.

9.1.43 "Stationary internal combustion engine" means:

- (a) any internal combustion engine greater than 175 hp, unless excluded under subsections (e) or (f) of this definition;
- (b) any combination of internal combustion engines totalling more than 175 hp when such engines are arranged to function together unless excluded under subsections (e) or (f) of this definition; or,
- (c) any internal combustion engine regulated under Section 111 of the Clean Air Act, regardless of size; or,
- (d) any internal combustion engine of 175 hp or less not actually controlled to meet a regulation under Section 213 of the Clean Air Act, unless excluded under subsections (e) or (f) of this definition.
- (e) an internal combustion engine that is used to propel a motor vehicle or nonroad vehicle is not a stationary internal combustion engine. This includes any internal combustion engine which serves a dual function (i.e., to both propel a vehicle and operate a device while stationary) such as a mobile crane.
- (f) an internal combustion engine which is located in, or on, a motor vehicle or nonroad vehicle and is primarily intended to operate while the vehicle is in motion is not a stationary internal combustion engine.

9.1.44 "Stationary source" means any building, structure, facility or installation which emits or may emit any air pollutant. A stationary source may consist of one or more emissions units. A stationary source does not include emissions resulting directly from an internal combustion engine for transportation purposes or emissions from a nonroad engine or nonroad vehicle.

9.1.45 "Volatile organic compound (VOC)" means compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates and ammonium carbonate which participates in atmospheric photochemical reactions. This includes any organic compound other than the following, which have been determined to have negligible photochemical reactivity:

- (a) acetone
- (b) CFC-11 (trichlorofluoromethane)
- (c) CFC-12 (dichlorodifluoromethane)
- (d) CFC-113 (1,1,1-trichloro 2,2,2-trifluoroethane)

- (e) CFC-114 (1,2-dichloro 1,1,2,2-tetrafluoroethane)
- (f) CFC-115 (chloropentafluoroethane)
- (g) ethane
- (h) HCFC-22 (chlorodifluoromethane)
- (i) HCFC-123 (1,1,1-trifluoro 2,2-dichloroethane)
- (j) HCFC-124 (2-chloro 1,1,1,2-tetrafluoroethane)
- (k) HCFC-141b (1,1-dichloro 1-fluoroethane)
- (l) HCFC-142b (1-chloro 1,1-difluoroethane)
- (m) HFC-23 (trifluoromethane)
- (n) HFC-125 (pentafluoroethane)
- (o) HFC-134 (1,1,2,2-tetrafluoroethane)
- (p) HFC-134a (1,1,1,2-tetrafluoroethane)
- (q) HFC-143a (1,1,1-trifluoroethane)
- (r) HFC-152a (1,1-difluoroethane)
- (s) methane
- (t) methyl chloroform (1,1,1-trichloroethane)
- (u) methylene chloride (dichloromethane)
- (v) parachlorobenzotrifluoride (PCBTF)
- (w) cyclic, branched, or linear completely methylated siloxanes
- (x) The perfluorocarbon compounds which fall into these classes:

- (1) cyclic, branched or linear, completely fluorinated alkanes;
- (2) cyclic, branched or linear, completely fluorinated ethers with no unsaturations;
- (3) cyclic, branched or linear, completely fluorinated tertiary amines with no unsaturations; and
- (4) sulfur containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine.

## 9.2 General Requirements

9.2.1 No person shall construct, install or modify or cause the construction, installation or modification of any stationary source subject to the provisions of this regulation without obtaining:

- (a) A Minor Source Permit from the Director for each proposed installation or modification described in Subsection 9.3.1; or,
- (b) A Major Source Permit from the Director for the proposed major stationary source or major modification.

### **9.3 Minor Source Permits: Applicability, Exemptions, Requirements for Approval and Applications**

#### **9.3.1 Applicability**

A Minor source permit is required for the construction, installation or modification of the following:

- (a) Any fuel burning device designed to burn:
  - (1) Residual oil or solid fossil fuels having a heat input capacity of one million Btu or more per hour;
  - (2) All other liquid fuels having a heat input capacity of five million Btu or more per hour;
  - (3) Gaseous fuel having a heat input capacity of ten million Btu or more per hour; or
  - (4) Alternative fuels, including but not limited to, wood chips, hazardous wastes or waste oil having a heat input capacity of one million Btu or more per hour.
- (b) Liquid petroleum storage tanks, reservoirs and containers with a capacity of forty thousand gallons or more used for the storage of petroleum liquids having a true vapor pressure greater than 1.52 psia at 69°F;
- (c) Any incinerator, except as exempted in Subsection 9.3.2(b);
- (d) Any stationary source having the potential to emit five tons per year or more of lead;
- (e) Any stationary source that emits or has the potential to emit, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants.
- (f) Any stationary source which has the potential to increase emissions of a listed toxic air contaminant by greater than the minimum quantity for that contaminant, as specified in Appendix A of this regulation.
- (g) Any other stationary source or process except for those outlined in Subsection 9.3.1 (a) having the potential to emit one hundred pounds or more per day, or ten pounds or more per hour of any air contaminant or combination of air contaminants into the atmosphere, including but not limited to the following categories:
  - (1) Surface coating, spray and dip painting, roller coating, knife coating and electrostatic depositing;

- (2) Metal cleaning or surface preparation, degreasing, bright dipping, stripping, galvanizing and chrome plating;
- (3) Textile dyeing and finishing, including tenter frames, dryers, printers and solvent dyers;
- (4) Glass or fiberglass manufacturing, including melting furnaces, forming lines, curing ovens and product cooling lines;
- (5) The production of asphalt concrete, including rotary dryers, screening and conveying systems and mixers;
- (6) The production of metal castings, including cupolas, reverberatory furnaces, electric furnaces, crucible furnaces and sand handling systems; and
- (7) The transfer of petroleum products having a true vapor pressure greater than 1.52 psia at 69°F from the storage facility to or from a mobile vessel.

(h) Any air pollution control system and appurtenances.

#### 9.3.2 Exemptions

- (a) The provisions of Subsection 9.3.1(h) shall not apply to the construction, installation or modification of any air pollution control system and appurtenances where:
  - (1) Emission of air contaminants in the absence of the air pollution control system would comply with all applicable state and federal air pollution control rules and regulations.
  - (2) Emission of air contaminants in the absence of the air pollution control system would not exceed any of the thresholds in Subsections 9.3.1 (d)-(g).
  - (3) The air pollution control system is used to treat emission of air contaminants generated from a groundwater cleanup operation and the air pollution control system will reduce emissions of VOC by at least 95%.

Any air pollution control system and appurtenances exempted from the requirement to obtain a permit must file a registration form with the Office of Air Resources prior to the construction, installation or modification of the system.

- (b) The provisions of this regulation shall not apply to incinerators constructed, installed, modified or used in owner-occupied dwellings having less than three units.

#### 9.3.3 Requirements for Approval



- (a) No person shall construct, install or modify or cause the construction, installation or modification of any minor stationary source described in Subsection 9.3.1 unless the following conditions are met:
  - (1) A stationary source shall apply BACT for each pollutant it would have the potential to emit. A modification shall apply BACT for each pollutant for which there would be a net emissions increase at the stationary source. In no event shall BACT be less stringent than any applicable emission rate contained in the Department's Air Pollution Control Regulations.
  - (2) Emissions from the stationary source will not cause an increase in the ground level ambient concentration at or beyond the property line in excess of that allowed by Air Pollution Control Regulation No. 22 and any Calculated Acceptable Ambient Levels.
  - (3) A new stationary source or a modification of an existing stationary source must conduct any studies required by the Guidelines for Assessing Health Risks from Proposed Air Pollution Sources and meet the criteria therein.
  - (4) Emissions from the stationary source shall not cause or contribute to air pollution in violation of any applicable state or national ambient air quality standard.
  - (5) The stationary source will be in compliance with all applicable state or federal air pollution control rules or regulations at the time the stationary source or modification commences operation.
- (b) In addition to the conditions in subsection 9.3.3(a), no person shall construct or reconstruct a 112(g) source unless:
  - (1) The source in question has been specifically regulated or exempted from regulation under a standard in 40 CFR Part 63, issued pursuant to Section 112(d), Section 112(h) or Section 112(j) of the Clean Air Act and the owner and operator has fully complied with all procedures and requirements for preconstruction review established by that standard, including any applicable requirements set forth in subpart A of 40 CFR part 63; or
  - (2) The Office of Air Resources has made a final and effective case-by-case determination pursuant to the provisions of 40 CFR 63.43 such that emissions from the constructed or reconstructed 112(g) source will be controlled to a level no less stringent than the maximum achievable control technology emission limitation for new sources.

#### 9.3.4 Minor Source Permit Applications

- (a) Application for approval of plans to construct, install or modify a minor source shall be made in duplicate by the owner or operator of any source described in Subsection 9.3.1 on forms furnished by the Director and shall be signed by:

- (1) For a corporation: a president, secretary, treasurer or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for the permit;
  - (2) For a partnership or sole proprietorship: a general partner or the proprietor, respectively;
  - (3) For a municipality, State, Federal or other public agency: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency.
- (b) A separate application, in duplicate, is required for each installation and air pollution control system described in Subsection 9.3.1.
- (c) Each application shall be accompanied by one set of plans, specifications and all other relative data that may be required by the Director to show:
- (1) how the source is designed and in what manner it will be operated and controlled; and
  - (2) that issuance of a construction permit will not prevent the maintenance or attainment of any applicable ambient air quality standard or prevent the achievement of other air quality goals.

#### **9.4 Major Source Permits: Requirements for Major Stationary Sources or Major Modifications in Nonattainment Areas**

##### **9.4.1 Definitions**

As used in Subsection 9.4 of this regulation the following terms shall, where the context permits, be construed as follows:

- (a) "Lowest achievable emission rate" means for any stationary source, the more stringent rate of emissions based on the following:
- (1) The most stringent emission limitation which is contained in the implementation plan of any state for such class or category of stationary source, unless the owner or operator of the proposed stationary source demonstrates that such limitations are not achievable; or
  - (2) The most stringent emission limitation which is achieved in practice by such class or category of stationary source. This limitation, when applied to a modification, means the lowest achievable emission rate for the new or modified installation within the stationary

source. In no event shall the application of this term permit a proposed new or modified stationary source to emit any pollutant in excess of the amount allowable under applicable new source performance standards.

(b) "Major stationary source" means:

- (1) Any stationary source of air pollutants which emits or has the potential to emit 50 tons per year or more of volatile organic compounds or nitrogen oxides or 100 tons per year of any other regulated air pollutant; or
- (2) Any physical change that would occur at a stationary source not qualifying under Subsection 9.4.1 (b)(1) if the change would constitute a major stationary source by itself; or
- (3) A major stationary source that is major for volatile organic compounds or nitrogen oxides shall be considered major for ozone.

9.4.2 New major stationary sources or major modifications of volatile organic compounds or nitrogen oxides, proposed in areas designated as either nonattainment for ozone pursuant to Section 107(d) of the Clean Air Act or as part of an ozone transport region pursuant to Section 184(a) of the Clean Air Act; or,

New major stationary sources or major modifications of sulfur dioxide, nitrogen dioxide, carbon monoxide or PM-10, proposed in areas designated as nonattainment pursuant to Section 107(d) of the Clean Air Act for the pollutant for which the source or modification is major, must obtain a Major Source permit. The following conditions must be met for the issuance of a Major Source permit:

- (a) Except as provided in Subsections 9.4.2(a)(3) and (4) below, the source must meet an emission limitation that is considered the lowest achievable emission rate. This lowest achievable emission rate will be based on technological factors and can be in the form of a numerical emission standard or a design, operational or equipment standard.
  - (1) A new major stationary source shall apply the lowest achievable emission rate for each pollutant subject to the provisions of Subsection 9.4.2 that it would have the potential to emit in major amounts. This provision applies to each new emissions unit at which emissions would occur.
  - (2) The owner/operator of a source proposing a major modification shall apply the lowest achievable emission rate for each pollutant subject to the provisions of Subsection 9.4.2 for which it would result in a significant net emissions increase at the source. This requirement applies to each proposed emissions unit at which a net emissions increase in the pollutant would occur as a result of a physical change or change in the method of operation of the unit.

- (3) For applications for major modifications to a stationary source which has potential emissions equal to or greater than 50 tons per year but less than 100 tons per year of volatile organic compounds or nitrogen oxides the source must apply BACT instead of LAER.
- (4) For applications for major modifications to a stationary source which has potential emissions greater than 100 tons per year of volatile organic compounds or nitrogen oxides the source must meet an emission limitation considered the lowest achievable emission rate unless internal offsets of such volatile organic compounds or nitrogen oxides are obtained at a ratio of at least 1.3 to 1, the source must then apply BACT instead of LAER.
- (b) The applicant must certify that all existing major stationary sources owned or operated by the applicant (or any entity controlling, controlled by, or under common control with the applicant) located within the state are in compliance with all applicable state and federal air pollution rules and regulations under the Clean Air Act and federally enforceable compliance schedules.
- (c) The applicant must provide evidence in accordance with Subsection 9.4.3 that the total tonnage of emissions of the applicable nonattainment air pollutant allowed from the proposed new source or net emissions increase from the modification, shall be offset by a greater reduction in the actual emissions of such air pollutant from the same or other sources.
- (d) The emission offsets must:
  - (1) be approved by the Director, and be part of a federally enforceable permit, or part of an operating permit issued pursuant to 40 CFR Part 71 or under regulations approved pursuant to 40 CFR Part 70, or otherwise made part of the federally approved State Implementation Plan.
  - (2) be federally enforceable prior to the issuance of the Major Source Permit.
  - (3) actually occur at the source of the offsets prior to the start-up date of the new source or modification
  - (4) be at an offset ratio of at least 1.2 to 1 for VOCs and nitrogen oxides and at least 1.1 to 1 for all other nonattainment air pollutants.
  - (5) be obtained from the same stationary source or other sources in the same nonattainment area or in another nonattainment area provided that:
    - a. the other nonattainment area has an equal or higher nonattainment classification than the area in which the source is located; and

- b. emissions from such other area contribute to a violation of the national ambient air quality standard in the nonattainment area in which the source is located.
- (6) when considered in conjunction with the proposed emissions increase, have a net air quality benefit in the area.
- (e) The applicant must submit an analysis of alternative sites, sizes, production processes, and environmental control techniques that demonstrate the benefits of the proposed source or modification significantly outweigh the environmental and social cost imposed as a result of its location, construction or modification.
- (f) New major stationary sources or major modifications for nitrogen oxides must demonstrate the conditions in Subsection 9.5.2 (b)-(d) and 9.5.3 (a)-(c) will be met.
- (g) The applicant must demonstrate that emissions from the stationary source will not cause an increase in the ground level ambient concentration at or beyond the property line in excess of that allowed by Air Pollution Control Regulation No. 22 and any Calculated Acceptable Ambient Levels.
- (h) The applicant must conduct any studies required by the Guidelines for Assessing Health Risks from Proposed Air Pollution Sources and meet the criteria therein.
- (i) The applicant must demonstrate that the stationary source will be in compliance with all applicable state or federal air pollution control rules or regulations at the time the stationary source or modification commences operation.

#### 9.4.3 Emission Offset Demonstration

- (a) Credit for an emissions reduction may be claimed to the extent that such reduction has not been relied on in any permit already issued under 40 CFR Part 52 or 71 or regulations approved pursuant to 40 CFR Part 51 or 70 or the state has not relied on it in demonstrating attainment or reasonable further progress. Incidental emissions reductions which are not otherwise required under the Clean Air Act may be creditable as emissions reductions for such purposes if such emissions reductions meet the applicable requirements for emission offsets. Emission offsets can be achieved by reducing current actual emissions of a source to a point below the applicable emission limitations in effect at the time of submission of the application by:
  - (1) installing additional air pollution control equipment on an existing source currently operating but considered in compliance with regulations.
  - (2) initiating a process change that will result in a reduction of emissions.

- (3) applying fugitive emission control measures that reduce actual emissions to less than is allowed by the applicable emission limitations in effect at the time of application.
  - (4) switching to a different type of fuel that will result in lowering the emission rate below the emission rate in effect at the time of application, if the applicant can demonstrate that:
    - a. an adequate long-term supply of the new fuel is available; and
    - b. the use of a specified alternative air pollution control measure would achieve the same degree of emission control in the event the source should switch back to the original fuel at a later date.
  - (5) permanently curtailing production or operating hours below levels that are specified in a federally enforceable document issued by the Department, subject to the restrictions provided in Subsection 9.4.3(c).
  - (6) permanently shutting down a facility, process or a source of emissions, subject to the restrictions provided in Subsection 9.4.3(c).
  - (7) establishing and supporting employer business travel control measures or employee commuter travel control measures that have quantifiable emission reductions that must be enforceable, permanent and surplus.
  - (8) adopting any other measures that can be used for emission offsets that have been approved by the Director.
- (b) Offset credit will not be given for the following:
- (1) Emission reductions that result from complying with existing or new rules and regulations, New Source Performance Standards, and National Emission Standards for Hazardous Air Pollutants or emission reductions otherwise required by the Clean Air Act (42 USC et seq. as amended).
  - (2) Increasing the stack height of a stationary source beyond good engineering practice as defined by the U.S. Environmental Protection Agency.
  - (3) The reduction of different pollutants, e.g. an increase in NO<sub>2</sub> emissions cannot be offset by a reduction of SO<sub>2</sub> emissions.
  - (4) With respect to a proposed increase in VOC emissions, no offset credit shall be allowed for reductions in any organic compound specifically excluded from the definition of "VOC" in Subsection 9.1.39.
  - (5) Reductions of volatile organic compound emissions from 1 November to 31 March of any year to substitute for emission increases that occur during the rest of the year.
  - (6) Emission reductions that occurred prior to 1 January 1990.
- (c) Emissions reductions achieved by shutting down an existing source or curtailing production or operating hours below baseline levels may be credited provided that:

- (1) Such reductions are surplus, permanent, quantifiable and federally enforceable; and,
- (2) The state has an EPA approved attainment plan for the area. The emissions reductions achieved from a shutdown or curtailment may be credited in the absence of an approved attainment plan only if the shutdown or curtailment occurred on or after the date the new source permit application is filed or if the proposed new source is a replacement for the shutdown or curtailed source and if the shutdown or curtailment and if the shutdown or curtailment occurred after 1 January 1990 or the date of the most recent emissions inventory used in the plan's demonstration of attainment, whichever is later.
- (3) The shutdown or curtailment occurred after 1 January 1990 or the date of the most recent emissions inventory used in the State's attainment plan, whichever is later. The Director may choose to consider a prior shutdown or curtailment to have occurred after the applicable date, if the most recent emissions inventory explicitly includes as current existing emissions, the emissions from such previously shutdown or curtailed sources.

#### 9.4.4 Reasonable Further Progress

- (a) By the time the proposed major stationary source or major modification is to commence operation, sufficient offsetting emissions shall be in effect such that the total emissions from existing sources in the area, from new or modified sources which are not major stationary sources and from the proposed source will be sufficiently less than total emissions from existing sources prior to the application for the Major Source permit so as to represent (when considered together with the plan provisions required under Section 172 of the Clean Air Act) reasonable further progress.

For the purposes of satisfying the requirements of this Subsection, the determination of total emissions at both the time prior to the application for a Major Source permit and the time the such permitted source or modification would commence operation, shall be made in a manner consistent with the assumptions in the RI State Implementation Plan approved by the EPA concerning baseline emissions for the demonstration of reasonable further progress and the attainment of the national ambient air quality standard for the particular pollutant subject to review under Subsection 9.4.2.

#### 9.4.5 General Prohibition

- (a) The Director shall not issue a Major Source Permit pursuant to the provisions of Subsection 9.4 if the Administrator of the Environmental Protection Agency has determined that the State Implementation Plan is not being adequately implemented for the nonattainment area in which the proposed source or modification is to be constructed.

### **9.5 Major Source Permits: Requirements for Major Stationary Sources or Major Modifications in Attainment or Unclassifiable Areas (PSD)**

#### 9.5.1 Definitions

As used in the this section of this regulation, the following terms shall, where the context permits, be construed as follows:

- (a) "Baseline area" means the state of Rhode Island.
- (b) "Baseline concentration" means that ambient concentration level which exists in the baseline area at the time of the applicable minor source baseline date. A baseline concentration is determined for each pollutant for which a baseline date is established and shall include the actual emissions representative of sources in existence on the applicable minor source baseline date. The following will not be included in the baseline concentration but will affect increment consumption:
- (1) Actual emissions from any major stationary source on which construction commenced after the major source baseline date; and
  - (2) Actual emissions increases and decreases at any stationary source occurring after the minor source baseline date.
- (c) "Increment" means the maximum allowable increase in pollutant concentration over the baseline concentration as set forth below:

<b>Particulate Matter:</b>	
PM-10, Annual geometric mean:	17 $\mu\text{g}/\text{m}^3$
PM-10, 24-hour maximum:	30 $\mu\text{g}/\text{m}^3$
<b>Sulfur Dioxide:</b>	
Annual geometric mean:	20 $\mu\text{g}/\text{m}^3$
24-hour maximum:	91 $\mu\text{g}/\text{m}^3$
3-hour maximum:	512 $\mu\text{g}/\text{m}^3$
<b>Nitrogen Dioxide:</b>	
Annual arithmetic mean:	25 $\mu\text{g}/\text{m}^3$

For any period other than an annual period, the applicable maximum allowable increase may be exceeded during one such period per year at any one location.

- (d) "Major source baseline date" means:
- (1) In the case of particulate matter and sulfur dioxide, 6 January 1975; and,
  - (2) In the case of nitrogen dioxide, 8 February 1988.
- (e) "Minor source baseline date" means:
- (1) In the case of particulate matter and sulfur dioxide, 3 December 1982; and,
  - (2) In the case of nitrogen dioxide, 5 August 1988.
  - (3) The Office of Air Resources may revise the minor source baseline date for particulate matter where it can be shown, to the satisfaction of the Director, that the emissions



increase from the major stationary source or the net emissions increase from the major modification, responsible for triggering that date did not result in a significant amount of PM-10 emissions.

(f) "Major stationary source" means:

(1) Any of the following stationary sources of air pollutants which emit, or have the potential to emit, 100 tons per year or more of any air pollutant: fossil fuel fired steam electric plants of more than 250 million Btu's (British thermal units) per hour heat input; coal cleaning plants (with thermal dryers); kraft pulp mills; portland cement plants; primary zinc smelters; iron and steel mill plants; primary aluminum ore reduction plants; primary copper smelters; municipal incinerators capable of charging more than 50 tons of refuse per day; hydrofluoric, sulfuric and nitric acid plants; petroleum refineries; lime plants; phosphate rock processing plants; coke oven batteries; sulfur recovery plants; carbon black plants (furnace process); primary lead smelters; fuel conversion plants; sintering plants; secondary metal production plants; chemical process plants; fossil fuel boilers (or combinations thereof) totaling more than 250 million Btu's per hour heat input; petroleum storage and transfer units with the total storage capacity exceeding 300,000 barrels; taconite ore processing plants; glass fiber processing plants; and charcoal production plants; or

(2) Notwithstanding the stationary source size specified above, any stationary source which emits or has the potential to emit 250 tons per year or more of any regulated air pollutant; or

(3) any physical change that would occur at a stationary source not otherwise qualifying as a major stationary source if the change would constitute a major stationary source by itself.

(4) A major stationary source that is major for volatile organic compounds shall be considered major for ozone.

9.5.2 Major stationary sources or major modifications proposed in areas designated as attainment or unclassifiable for any pollutant for which there is a significant net emissions increase at the source or modification must obtain a Major Source permit. The following conditions must be met for the issuance of a Major Source permit:

(a) Best Available Control Technology

(1) A new major stationary source shall apply BACT for each pollutant it would have the potential to emit.

(2) A major modification shall apply BACT for each pollutant for which there would be a net emissions increase at the source.

(b) Air Quality Impact Analysis

(1) The owner or operator of the proposed stationary source or modification shall demonstrate, by means of air quality modeling based on the applicable air quality models, data bases and other requirements specified in the EPA Guideline on Air Quality Models, that allowable emission increases from the proposed source or modification, in

conjunction with all other applicable emission increases or decreases (including secondary emissions), would not cause or contribute to:

- a. air pollution in violation of any national ambient air quality standard; or
- b. any increase in ambient concentrations exceeding the remaining available increment for the specified air contaminant.

(2) The air quality impact analysis shall include the following:

- a. An analysis of ambient air quality in the area that the major stationary source or major modification would affect for each of the following pollutants:
  - (i) For the source, each pollutant that it would have the potential to emit in a significant amount;
  - (ii) For the modification, each pollutant for which it would result in a significant net emissions increase.
- b. The analysis shall include ambient air monitoring data that has been gathered over a period of one year and shall represent the year preceding submission of the application. Ambient air monitoring data collected for a time period of less than one year (but not less than four months) or for a time period other than the year immediately preceding submission of the application may be acceptable if such data is adequate for determining whether the source or modification will cause or contribute to a violation of any applicable national ambient air quality standard or consume more than the remaining available increment.
- c. For any pollutant for which no National Ambient Air Quality Standard exists, the analysis shall contain such air quality monitoring data as the Director determines is necessary to assess ambient air quality for that pollutant in any area that the emissions of that pollutant would affect.
- d. Ambient air monitoring data will not be required if:
  - (i) the emissions increase of the pollutant from a new stationary source or the net emissions increase of the pollutant from a modification would cause air quality impacts less than the following amounts:

Carbon monoxide..... 575  $\mu\text{g}/\text{m}^3$ , 8-hr avg.

Nitrogen dioxide ..... 14  $\mu\text{g}/\text{m}^3$ , ann. avg.

PM-10 ..... 10  $\mu\text{g}/\text{m}^3$ , 24-hr avg.

Sulfur dioxide ..... 13  $\mu\text{g}/\text{m}^3$ , 24-hr avg.

Lead.....0.1  $\mu\text{g}/\text{m}^3$ , 3 month avg.

Mercury..... 0.25  $\mu\text{g}/\text{m}^3$ , 24-hr avg.

Beryllium .....	0.001 µg/m <sup>3</sup> , 24-hr avg.
Fluorides .....	0.25 µg/m <sup>3</sup> , 24-hr avg.
Vinyl chloride .....	15 µg/m <sup>3</sup> , 24-hr avg.
Total reduced sulfur .....	10 µg/m <sup>3</sup> , 1-hr avg.
Hydrogen sulfide .....	0.2 µg/m <sup>3</sup> , 1-hr avg.
Reduced sulfur compounds .....	10 µg/m <sup>3</sup> , 1-hr avg.

- (ii) the concentrations of the pollutant in the area that the source or modification would affect are less than the concentrations listed above.

e. upon request, the owner or operator shall provide information on:

- (i) the air quality impact of the source or modification including meteorological and topographical data necessary to estimate such impact; and
- (ii) the air quality impacts and the nature and extent of any or all general commercial, residential, industrial and other growth which has occurred since 7 August 1977, in the area the source or modification would affect.

(c) Additional Impact Analysis

- (1) The owner or operator shall provide an analysis of the impairment to visibility, soils, and vegetation that would occur as a result of the source or modification and general commercial, residential, industrial and other growth associated with the source or modification. The sole criterion for determining if an application is approvable with regard to impairment to visibility and soils shall be compliance with applicable provisions of Subsection 9.5.2(d). The sole criteria for determining if an application is approvable with regard to impairment to vegetation shall be compliance with all secondary national ambient air quality standards under Subsection 9.5.2(b)(1)a. and compliance with the applicable provisions of Subsection 9.5.2(d).
- (2) The owner or operator shall provide an analysis of the air quality impact projected for the area as a result of general commercial, residential, industrial and other growth associated with the source or modification.
- (d) The owner or operator shall apply the applicable procedures of the Guidelines for Assessing the Welfare Impacts of Proposed Air Pollution Sources and meet the criteria therein.
- (e) The applicant must demonstrate that emissions from the stationary source will not cause an increase in the ground level ambient concentration at or beyond the property line in excess of that allowed by Air Pollution Control Regulation No. 22 and any Calculated Acceptable Ambient Levels.
- (f) The applicant must conduct any studies required by the Guidelines for Assessing Health Risks from Proposed Air Pollution Sources and meet the criteria therein.

- (g) The applicant must demonstrate that the stationary source will be in compliance with all applicable state or federal air pollution control rules or regulations at the time the stationary source or modification commences operation.

9.5.3 Increment consumption shall be governed by the following conditions:

- (a) No major stationary source or major modification will be allowed to consume more than 75 percent of the remaining 24-hour increment or 25 percent of the remaining annual increment.
- (b) All State Implementation Plan revisions or relaxations that consume increment must begin actual construction or begin operation at the increased emission rate, if no construction is necessary, within eighteen (18) months of final approval of the State Implementation Plan revision or relaxation.

If actual construction or operation has not begun within eighteen (18) months, a revised air quality impact analysis meeting the requirements of Subsections 9.5.2 (b) shall be submitted prior to actual construction or operation.

This revised air quality impact analysis shall take into account actual emission increases and decreases at any stationary source that occurred after the original air quality impact analysis had been submitted.

The Director may revoke the State Implementation Plan revision or relaxation, following the procedure in Subsection 9.6.5 and 9.6.6 , if the revised air quality impact analysis shows that allowable emission increases from the State Implementation Plan revision or relaxation, in conjunction with all other applicable emission increases or decreases, would cause or contribute to:

- (1) air pollution in violation of any national ambient air quality standard; or
- (2) any increase in ambient concentrations exceeding the remaining available increment for the specified air contaminant.

- (c) The following concentrations shall be excluded in determining increment consumption:

- (1) Concentrations attributable to the increase in emissions from stationary sources which have converted from the use of petroleum products, natural gas, or both by reason of an order in effect under Sections 2 (a) and (b) of the Energy Supply and Environmental Coordination Act of 1974 (or any superseding legislation) over the emissions from such sources before the effective date of such an order;
- (2) Concentrations attributable to the increase in emissions from sources which have converted from using natural gas by reason of natural gas curtailment plan in effect pursuant to the Federal Power Act over the emissions from such sources before the effective date of such plan;
- (3) No exclusion of concentrations referred to in Sections (1) or (2) shall apply more than five years after the effective date of the conversion;

- (4) Concentrations of total suspended particulate attributable to the increase in emissions from construction or other temporary emission-related activities of new or modified sources;
- (5) Concentrations attributable to the temporary increase in emissions of sulfur dioxide, nitrogen oxides or particulate matter from stationary sources which are affected by State Implementation Plan revisions meeting the following criteria:
  - a. The duration of the State Implementation Plan revision shall not exceed thirty (30) months; and
  - b. The duration of the exclusion is not renewable; and
  - c. The emissions increase from the source would not cause or contribute to the violation of a national ambient air quality standard or impact an area where an applicable increment is known to be violated; and
  - d. At the end of the State Implementation Plan revision, the emission levels from the source shall not exceed those levels occurring before the State Implementation Plan revision was approved.

#### 9.5.4 Applicability Exemptions

- (a) The requirements of Subsection 9.5 shall not apply to a major stationary source or major modification if:
  - (1) The source or modification would be a major stationary source or major modification only if fugitive emissions, to the extent quantifiable, are considered in calculating the potential to emit of the stationary source or modification and such source is not one of the 28 named source categories identified in the definition "major stationary source" for attainment or unclassifiable areas; or
  - (2) The source or modification is a portable stationary source which has previously received a permit under the requirements of Subsection 9.5; and if
    - a. the source proposes to relocate and the emissions from the source at the new location would be temporary; and
    - b. the emissions from the source would not exceed its allowable emissions; and
    - c. the emissions from the source would impact no area where an applicable increment is known to be violated; and
    - d. reasonable notice is given to the Director prior to the proposed relocation identifying the proposed new location and the probable duration of operation at the new location. Such notice shall be given to the Director not less than thirty (30) days in advance of the proposed relocation.
  - (3) The requirements of Subsection 9.5.2(b) and (c) shall not apply to a major stationary source or major modification if, with respect to a particular pollutant, the allowable emissions of that pollutant from a new source, or the net emissions increase of that

pollutant from a modification would be temporary and impact no area where an applicable increment is known to be violated.

- 9.5.5 Any major stationary source or major modification, proposed to be located in an area designated as attainment or unclassifiable for the pollutant for which the source or modification is major, must comply with the provisions of Subsection 9.4.2 if the proposed emission increase from the source or modification would result in an increase in the ambient concentration that would equal or exceed the following significance levels in an area that is nonattainment for the pollutant.

<u>Averaging Time</u>					
<b>Pollutant</b>	<b>Annual</b>	<b>24-Hr</b>	<b>8-Hr</b>	<b>3-Hr</b>	<b>1-Hr</b>
<b>SO<sub>2</sub> (µg/m<sup>3</sup>)</b>	1.0	5	-	25	-
<b>PM-10 (µg/m<sup>3</sup>)</b>	1.0	5	-	-	-
<b>NO<sub>2</sub> (µg/m<sup>3</sup>)</b>	1.0	-	-	-	-
<b>CO (mg/m<sup>3</sup>)</b>	-	-	0.5	-	2

## 9.6 Administrative Actions

- 9.6.1 The Director shall act on a completed application for any permit required in this regulation and shall notify the applicant in writing of any action taken, including:

(a) For Minor source permits, except the construction or reconstruction of a 112(g) source:

- (1) Issuing the permit and notifying the applicant of the applicable subsections of this regulation and any permit conditions with which the applicant must comply; or
- (2) Denying the application and notifying the applicant as to why the application has been denied.

(b) For Major Source permits and the construction or reconstruction of a 112(g) source:

- (1) notifying the applicant that the application is complete
- (2) Issuing a draft permit subject to the public participation procedures in Subsection 9.12
- (3) Issuing a final permit after public participation procedures are completed and notifying the applicant of any subsequent changes to the permit
- (4) Denying the application and notifying the applicant as to why a draft permit or a final permit will not be issued

- 9.6.2 Any permit issued pursuant to this regulation shall allow the Director to :

(a) inspect the stationary source or air pollution control system to ensure that:

- (1) it is located as shown on the equipment location drawing, and

- (2) it is constructed and being operated as indicated on the application and as required by regulation or permit conditions
- (b) require the applicant to conduct emission tests to the specifications of the Director within sixty (60) days after the stationary source or air pollution control system achieves its maximum or normal operating rate, but not later than one hundred eighty (180) days after initial start up;
- (c) require the applicant to install sampling ports;
- (d) Require the applicant to assure that emission testing can be conducted in a safe manner;
- (e) require the applicant to install a sampling valve for boilers burning oil to facilitate sample collection; and
- (f) impose conditions on the design, construction or operation of the source, including but not limited to:
  - (1) limitations on the hours of operation
  - (2) limitations on allowable emissions from the stationary source
  - (3) operation and maintenance criteria that are necessary to ensure that the maximum allowable emissions from the stationary source are not exceeded
  - (4) require the use of instrumentation to monitor and record emission data
  - (5) conditions to ensure the attainment or maintenance of applicable state or national ambient air quality standards
  - (6) conditions to ensure that compliance with all applicable state and federal air pollution control rules and regulations is attained and maintained

9.6.3 The Director shall cancel or revoke a permit under the following conditions:

- (a) Minor source permits shall be canceled if construction, installation or modification has not commenced within one (1) year from its date of issuance.
- (b) Major Source Permits shall be canceled if construction, installation or modification has not commenced within 18 months from its date of issuance. For any person who, prior to 24 March 1993 was issued a permit for a major stationary source or major modification, the permit shall be canceled if construction, installation or modification has not commenced by 24 September 1994.
- (c) If the work involved in the construction, installation or modification has been suspended for one (1) year or more.
- (d) If results of an emission test would indicate that emission limitations cannot be achieved.

- (e) If the applicant has violated any of the conditions of the permit that would cause the source or air pollution control system to operate in such a manner that emission limitations could not be achieved.
  - (f) If the emission offsets required under Subsections 9.4.2(c) have not actually occurred at the source of the offsets prior to the start-up date of the new source or modification.
- 9.6.4 An applicant may apply for an extension of the time limits in Subsection 9.6.3 by filing a written request to the Director stating the reasons for the request. An extension may be granted for a period of not more than six (6) months for a Minor Source permit or eighteen (18) months for a Major Source permit.
- 9.6.5 If any application is denied, the applicant may appeal the decision to the Administrative Adjudication Division for Environmental Matters (AAD). Appeals must be filed with the AAD within 30 days of the issuance of the Office of Air Resource's final decision.
- 9.6.6 All hearings shall be pursuant to the rules and regulations established by the Director and the rules and regulations established by the Administrative Adjudication Division for Environmental Matters. All hearings shall be heard before administrative adjudication hearing officers. All hearings shall be evidentiary hearings. All witnesses shall testify under oath and shall be subject to cross-examination.
- 9.6.7 Any conditions included with a permit shall have the full force and effect of rules and regulations.
- 9.6.8 Any person who receives a permit shall comply with all conditions included with the permit.
- 9.6.9 Failure to comply with all conditions included with a permit shall be considered failure to comply with this regulation.
- 9.6.10 The holder of an approved permit may not transfer it without prior written notification to the Director. Each new owner or operator or holder of the permit shall be responsible for complying with all applicable regulations and any permit conditions.
- 9.6.11 Issuance of a permit pursuant to the provisions of this regulation does not relieve the owner/operator from the responsibility to comply fully with any applicable state or federal air pollution control rules or regulations and any other requirements under local, state or federal law.

## **9.7 Phased Construction Projects**

- 9.7.1 For phased construction projects, the determination of best available control technology shall be reviewed and modified as appropriate at the least reasonable time which occurs no later than eighteen (18) months prior to commencement of construction of each independent phase of the project. At such time, the owner or operator of the applicable stationary source may be required to demonstrate the adequacy of any previous determination of best available control technology for the source.



## **9.8 Stack Heights**

9.8.1 The degree of emission limitation required for control of any air pollutant under these regulations shall not be affected in any manner by:

- (a) so much of a stack height, not in existence before 31 December 1970, as exceeds good engineering practice; or
- (b) any other dispersion technique not implemented before then.

## **9.9 Post Construction Monitoring**

9.9.1 The owner or operator of a major stationary source or modification shall, after construction of the source or modification, conduct such ambient monitoring as the Director determines is necessary to determine the effect emissions from the source or modification may have or are having on air quality.

9.9.2 Monitoring conducted for the purposes of satisfying Subsections 9.5.2 (b)(2)(b) and 9.9.1 shall meet the requirements of Appendix B to 40 CFR Part 58.

## **9.10 Relaxations**

9.10.1 At such time that a particular source or modification becomes a major stationary source or major modification solely by virtue of a relaxation in any enforceable limitation which was established after 7 August 1980 on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the applicable requirements of Subsection 9.4 or 9.5 shall apply to the source or modification as though construction had not yet commenced on the source or modification.

## **9.11 Banking of Emissions**

9.11.1 The Director may credit a source with emission reductions that may be used at a later date for the purposes of meeting the emission offset provisions of Subsections 9.4.2 (c).

9.11.2 Emission reductions may not be banked by a source without prior approval of the Director and will be subject to the following conditions:

- (a) A request for banking emission reductions must provide information that demonstrates the nature of these reductions.
- (b) Emission reductions achieved prior to 1 January 1990 will not be subject to banking.
- (c) Emission reductions achieved during the time period between 1 January 1990 and 24 March 1993 may be banked providing the source can present to the Director an adequate demonstration of emission reductions.

- (d) Emission reductions achieved after 24 March 1993 may be banked if a request is submitted to the Director within six (6) months of the emission reduction.
- (e) Emission reductions shall be included as a condition of a federally enforceable permit.
- (f) Emission reductions must be achieved by a manner outlined in Subsection 9.4.3(a).

9.11.3 The Director shall notify the source of the approved emission reductions that are banked.

9.11.4 The Director shall maintain a file of approved banked emissions. The file shall be available for inspection during normal office hours given adequate notice.

9.11.5 Emission reductions may not be transferred unless approved in writing in advance by the Director.

## **9.12 Public Participation**

The following procedures shall be applicable to Major Source Permit applications.

- 9.12.1 (a) The Office of Air Resources shall review each application and shall give public notice of its intention to either issue a permit or deny the application. The draft permit or tentative denial, including all supporting documentation, shall be made available for public comment. Public notice shall be published in a newspaper of general circulation in the area in which the proposed source would be located. The Office of Air Resources shall make available for public inspection, in at least one location in the city or town where the source would be located, the information submitted by the owner/operator, the Office of Air Resources's analysis of the application and the draft permit or tentative denial.
- (b) A public hearing for interested persons to appear and submit written or oral comments on the draft permit or tentative denial shall be held if requested by any person, governmental subdivision or agency or by an association. The Director may also hold a hearing at his or her discretion, whenever he or she believes there is a significant degree of public interest in the proposed action. If held, a hearing shall take place no earlier than thirty (30) days nor later than sixty (60) days following initial public notice. Comments from the applicant and/or any interested persons shall be recorded at the public hearing. Written comments, to be considered part of the record, must be submitted during the public comment period. The public comment period shall commence on the date of initial public notice. The public comment period shall close thirty (30) days later, if no hearing is held. If a public hearing is held, the public comment period shall close at the close of the public comment hearing or on a date set by the Office of Air Resources.
- (c) Following the close of the public comment period, the Office of Air Resources shall issue or deny the permit in writing. The Office of Air Resources shall provide a written response to each substantive public comment.
- (d) The applicant and/or any person who provided substantive comment at any time during the public comment period may appeal the decision of the Office of Air Resources to the

Administrative Adjudication Division for Environmental Matters provided, however, any person who shall demonstrate good cause for failure to participate and demonstrate that his/her interests shall be substantially impacted if prohibited from appearance in the appeal, may in the discretion of the AAD hearing officer be permitted to participate in the appeal process. Appeals must be filed with the AAD within 30 days of the issuance of the Office of Air Resource's final decision.

- (e) The appeal shall be limited to those issues raised by the parties, provided, however, that upon good cause shown, the AAD hearing officer shall allow additional issues to be raised.
- (f) All appeals shall be pursuant to the rules and regulations established by the Director and the rules and regulations established by the Administrative Adjudication Division for Environmental Matters, provided, however, that all appeals shall contain precise statements of the issues presented on appeal and the specific part or parts of the decision of the Office of Air Resources which are challenged.
- (g) All appeals shall be heard before administrative adjudication hearing officers. All hearings shall be evidentiary hearings. All witnesses shall testify under oath and shall be subject to cross-examination.

9.12.2 All public notices shall contain the following minimum information:

- (a) Name and address of the permit applicant and if different, of the facility regulated by the proposed action.
- (b) A brief description of the activity described in the permit application.
- (c) Name, address, and telephone number of a person from whom interested persons may obtain further information, including copies of the draft permit, a fact sheet and the application.
- (d) A brief description of the procedures for public comment, a statement of the procedures for requesting a hearing and the time and place of any hearing that has already been scheduled.
- (e) The location and the times at which the application and all supporting documentation, including draft permit or notice of intent to deny the application and a fact sheet, will be available for public inspection.
- (f) The quantity and location of offsets, degree of increment consumption, and the determination of LAER.

9.12.3 At a minimum, a copy of the public notice shall be sent to:

- (a) The permit applicant
- (b) The Regional Administrator of the USEPA
- (c) The chief executives of the city or town where the source would be located
- (d) Any comprehensive regional land use planning agency

- (e) Any State, Federal Land Manager or Indian Governing Body whose lands may be affected by emissions from the proposed source

9.12.4 A fact sheet shall be prepared for each draft permit. The fact sheet shall include the following information, where applicable:

- (a) A brief description of the type of facility or activity which is the subject of the draft permit.
- (b) The type and quantity of pollutants which are proposed to be emitted from the facility or activity.
- (c) The degree of increment consumption expected to result from operation of the facility or activity.
- (d) The quantity and location of any offsets obtained by the facility or activity.
- (e) A brief summary of any permit conditions contained in the draft permit.
- (f) The beginning and ending dates of the public comment period and the address where comments will be received.
- (g) Procedures for requesting a hearing and the nature of that hearing.
- (h) The name and telephone number of a person to contact for additional information.

### **9.13 Application for an Air Toxics Operating Permit**

9.13.1 Applications for an air toxics operating permit shall be made in duplicate by owners of all sources notified pursuant to Subsection 22.5.2 of Air Pollution Control Regulation No. 22 on forms furnished by the Director and shall be signed by:

- (a) For a corporation: a president, secretary, treasurer or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for the permit;
- (b) For a partnership or sole proprietorship: a general partner or the proprietor, respectively;
- (c) For a municipality, State, Federal or other public agency: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

### **9.14 Administrative Action: Air Toxics Operating Permits**

9.14.1 The Director shall issue an air toxics operating permit only if the conditions specified in Subsection 22.5.4 of Air Pollution Control Regulation No.22 are met.

9.14.2 The Director may impose reasonable conditions on an air toxics operating permit, including but not limited to:

- (a) limitations on the hours of operation
- (b) limitations on allowable emissions from the stationary source
- (c) operation and maintenance criteria that are necessary to ensure that the maximum allowable emissions from the stationary source are not exceeded
- (d) installation and/or operation of instrumentation to monitor and record emission data
- (e) conditions to ensure the attainment or maintenance of applicable state or national ambient air quality standards or acceptable ambient levels
- (f) conditions to ensure that compliance with all applicable state and federal air pollution control rules and regulations is attained and maintained
- (g) periodic emissions testing of the source of the air toxics emissions

9.14.3 Air toxics operating permits initially shall be issued for a time period of between three and five years. The holder of an air toxics operating permit must make a written request for its renewal at least one hundred twenty (120) days prior to its expiration date. Thereafter, the air toxics operating permit may be re-issued for a three-to-five-year time period.

9.14.4 The Director may cancel or revoke an air toxics operating permit by notifying the holder of the permit in writing if any of the conditions of the air toxics operating permit have been violated.

9.14.5 If the air toxics operating permit has been canceled or revoked, the holder of the permit may submit to the Director a written request for the reasons for its cancellation or revocation and may request a hearing on the action.

## **9.15 Transfer of an Air Toxics Operating Permit**

9.15.1 Air Toxics operating permits may not be transferred unless the holder receives written permission from the Director.

9.15.2 The new owner, operator, or person to whom the air toxics operating permit is transferred shall be responsible for complying with all applicable regulations and conditions of the permit.

**Appendix A: Minimum Quantities**  
(Pounds per hour)

Acrylonitrile	0.0005
Aniline	0.04
o-Anisidine	0.001
Antimony & antimony compounds	1.14
Arsenic & arsenic compounds	0
Benzene	0.005
Benzidine	0
Benzotrichloride	0
Benzyl chloride	0.001
Cadmium & cadmium compounds	0
Carbon tetrachloride	0.002
Chloroform	0.002
Chromium & chromium compounds	0
3,3'-Dichlorobenzidine	0.0004
Diethyl phthalate (DOP, DEHP)	0.02
Diphenyl (biphenyl)	0.02
Diphenylamine	1.14
Epichlorohydrin	0.04
Ethylene dichloride (1,2 dichloroethane)	0.002
Ethylene oxide	0.0006
Hydrazine	0
Hydrogen chloride	1.14
Hydrogen fluoride	0.1
Manganese & manganese compounds	0.01
Methyl cellosolve	1.14
Methylene bisphenyl isocyanate (MDI)	0.003
4,4'-Methylene bis(2-chloroaniline) (MOCA)	0.05
Methylene chloride (dichloromethane)	0.1
Nickel & nickel compounds	0.0001
5-Nitro (o-anisidine)	0.004
2-Nitropropane	0.01
Perchloroethylene (tetrachloroethylene)	0.002
Styrene	1.14
Toluene	1.14
Toluene-2,4-diisocyanate (TDI)	0.001
o-Toluidine	0.002
1,1,2-Trichloroethane	0.3
Trichloroethylene	0.02
Triethylamine	1.14
Xylenes	1.14

## Appendix B: List of Hazardous Air Pollutants

revised July, 1996

<u>CAS</u>	<u>Chemical Name</u>		
75070	Acetaldehyde	542756	1,3-Dichloropropene
60355	Acetamide	62737	Dichlorvos
75058	Acetonitrile	111422	Diethanolamine
98862	Acetophenone	121697	N,N-Diethyl aniline (N,N-Dimethylaniline)
53963	2-Acetylaminofluorene	64675	Diethyl sulfate
107028	Acrolein	119904	3,3-Dimethoxybenzidine
79061	Acrylamide	60117	Dimethyl aminoazobenzene
79107	Acrylic acid	119937	3,3-Dimethyl benzidine
107131	Acrylonitrile	79447	Dimethyl carbamoyl chloride
107051	Allyl chloride	68122	Dimethyl formamide
92671	4-Aminobiphenyl	57147	1,1-Dimethyl hydrazine
62533	Aniline	131113	Dimethyl phthalate
90040	o-Anisidine	77781	Dimethyl sulfate
1332214	Asbestos	534521	4,6-Dinitro-o-cresol, and salts
71432	Benzene (inc. benzene from gasoline)	51285	2,4-Dinitrophenol
92875	Benzidine	121142	2,4-Dinitrotoluene
98077	Benzotrichloride	123911	1,4-Dioxane (1,4-Diethyleneoxide)
100447	Benzyl chloride	122667	1,2-Diphenylhydrazine
92524	Biphenyl	106898	Epichlorohydrin (1-Chloro-2,3-epoxypropane)
117817	Bis(2-ethylhexyl)phthalate (DEHP)	106887	1,2-Epoxybutane
542881	Bis(chloromethyl)ether	140885	Ethyl acrylate
75252	Bromoform	100414	Ethyl benzene
106990	1,3-Butadiene	51796	Ethyl carbamate (Urethane)
156627	Calcium cyanamide	75003	Ethyl chloride (Chloroethane)
133062	Captan	106934	Ethylene dibromide (Dibromoethane)
63252	Carbaryl	107062	Ethylene dichloride (1,2-Dichloroethane)
75150	Carbon disulfide	107211	Ethylene glycol
56235	Carbon tetrachloride	151564	Ethylene imine (Aziridine)
463581	Carbonyl sulfide	75218	Ethylene oxide
120809	Catechol	96457	Ethylene thiourea
133904	Chloramben	75343	Ethylidene dichloride (1,1-Dichloroethane)
57749	Chlordane	50000	Formaldehyde
7782505	Chlorine	76448	Heptachlor
79118	Chloroacetic acid	118741	Hexachlorobenzene
532274	2-Chloroacetophenone	87683	Hexachlorobutadiene
108907	Chlorobenzene	77474	Hexachlorocyclopentadiene
510156	Chlorobenzilate	67721	Hexachloroethane
67663	Chloroform	822060	Hexamethylene-1,6-diisocyanate
107302	Chloromethyl methyl ether	680319	Hexamethylphosphoramide
126998	Chloroprene	110543	Hexane
1319773	Cresols/Cresylic acid (isomers and mixture)	302012	Hydrazine
95487	o-Cresol	7647010	Hydrochloric acid
108394	m-Cresol	7664393	Hydrogen fluoride (Hydrofluoric acid)
106445	p-Cresol	123319	Hydroquinone
98828	Cumene	78591	Isophorone
94757	2,4-D, salts and esters	58899	Lindane (all isomers)
3547044	DDE	108316	Maleic anhydride
334883	Diazomethane	67561	Methanol
132649	Dibenzofurans	72435	Methoxychlor
96128	1,2-Dibromo-3-chloropropane	74839	Methyl bromide (Bromomethane)
84742	Dibutylphthalate		
106467	1,4-Dichlorobenzene(p)		
91941	3,3-Dichlorobenzidine		
111444	Dichloroethyl ether (Bis(2-chloroethyl)ether)		

74873	Methyl chloride (Chloromethane)	79345	1,1,2,2-Tetrachloroethane
71556	Methyl chloroform (1,1,1-Trichloroethane)	127184	Tetrachloroethylene (Perchloroethylene)
78933	Methyl ethyl ketone (2-Butanone)	7550450	Titanium tetrachloride
60344	Methyl hydrazine	108883	Toluene
74884	Methyl iodide (Iodomethane)	95807	2,4-Toluene diamine
108101	Methyl isobutyl ketone (Hexone)	584849	2,4-Toluene diisocyanate
624839	Methyl isocyanate	95534	o-Toluidine
80626	Methyl methacrylate	8001352	Toxaphene (chlorinated camphene)
1634044	Methyl tert butyl ether	120821	1,2,4-Trichlorobenzene
101144	4,4-Methylene bis(2-chloroaniline)	79005	1,1,2-Trichloroethane
75092	Methylene chloride (Dichloromethane)	79016	Trichloroethylene
101688	Methylene diphenyl diisocyanate (MDI)	95954	2,4,5-Trichlorophenol
101779	4,4-Methylenedianiline	88062	2,4,6-Trichlorophenol
91203	Naphthalene	121448	Triethylamine
98953	Nitrobenzene	1582098	Trifluralin
92933	4-Nitrobiphenyl	540841	2,2,4-Trimethylpentane
100027	4-Nitrophenol	108054	Vinyl acetate
79469	2-Nitropropane	593602	Vinyl bromide
684935	N-Nitroso-N-methylurea	75014	Vinyl chloride
62759	N-Nitrosodimethylamine	75354	Vinylidene chloride (1,1-Dichloroethylene)
59892	N-Nitrosomorpholine	1330207	Xylenes (isomers and mixture)
56382	Parathion	95476	o-Xylenes
82688	Pentachloronitrobenzene (Quintobenzene)	108383	m-Xylenes
87865	Pentachlorophenol	106423	p-Xylenes
108952	Phenol	0	Antimony Compounds
106503	p-Phenylenediamine	0	Arsenic Compounds (inorganic including arsine)
75445	Phosgene	0	Beryllium Compounds
7803512	Phosphine	0	Cadmium Compounds
7723140	Phosphorus	0	Chromium Compounds
85449	Phthalic anhydride	0	Cobalt Compounds
1336363	Polychlorinated biphenyls (Aroclors)	0	Coke Oven Emissions
1120714	1,3-Propane sultone	0	Cyanide Compounds <sup>1</sup>
57578	beta-Propiolactone	0	Glycol ethers <sup>2</sup>
123386	Propionaldehyde	0	Lead Compounds
114261	Propoxur (Baygon)	0	Manganese Compounds
78875	Propylene dichloride (1,2-Dichloropropane)	0	Mercury Compounds
75569	Propylene oxide	0	Fine mineral fibers <sup>3</sup>
75558	1,2-Propylenimine (2-Methyl aziridine)	0	Nickel Compounds
91225	Quinoline	0	Polycyclic Organic Matter <sup>4</sup>
106514	Quinone	0	Radionuclides (including radon) <sup>5</sup>
100425	Styrene	0	Selenium Compounds
96093	Styrene oxide		
1746016	2,3,7,8- Tetrachloro- dibenzo-p-dioxin		

NOTE: For all listings above which contain the word "compounds" and for glycol ethers, the following applies: Unless otherwise specified, these listings are defined as including any unique chemical substance that contains the named chemical (i.e., antimony, arsenic, etc.) as part of that chemical's infrastructure.



- \*1**  $X'CN$  where  $X = H'$  or any other group where a formal dissociation may occur. For example KCN or  $Ca(CN)_2$
- \*2** Includes mono- and di- ethers of ethylene glycol, diethylene glycol, and triethylene glycol  $R-(OCH_2CH_2)_n-OR'$  where  
n = 1, 2, or 3  
R = alkyl or aryl groups  
R' = R, H, or groups which, when removed, yield glycol ethers with the structure:  $R-(OCH_2CH_2)_n-OH$ . Polymers are excluded from the glycol category.
- \*3** Includes mineral fiber emissions from facilities manufacturing or processing glass, rock, or slag fibers (or other mineral derived fibers) of average diameter 1 micrometer or less.
- \*4** Includes organic compounds with more than one benzene ring, and which have a boiling point greater than or equal to 100°C.
- \*5** A type of atom which spontaneously undergoes radioactive decay.